



Scottish Government
Riaghaltas na h-Alba
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Marine Scotland

Pre-disposal Sampling Guidance
Version 2 – November 2017

marinescotland

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1. Introduction

Sea disposal operations are controlled by:

- [Marine \(Scotland\) Act 2010](#);
- [OSPAR Convention 1992](#), see also;
 - [OSPAR Guidelines for the Management of Dredged Material at Sea](#);
 - [JAMP Guidelines for Monitoring Contaminants in Sediments](#)
- [The EU Waste Directive](#);
- [The London Convention & Protocol](#);
- [The EU Water Framework Directive](#); and
- [Scotland's National Marine Plan](#).

The requirements set out in this document will ensure applications are in compliance with the above. Deviations from these requirements are liable to result in delays in processing your application as well as the potential requirement for further sampling, analysis and assessment. Please retain **all** samples until determination of your application has been made in case further analysis is required.

2. Pre-disposal sampling stages

The process map ([see Figure 1](#)) shows the stages both applicant and MS-LOT must go through to determine a marine licence application for sea disposal activities.

Figure 1 – Process map of pre-disposal sampling stages



3. Sampling and analysis requirements

There are a minimum number of sample stations required for each dredge volume (see [Table 1](#)).

Table 1 – Minimum sample stations required by dredge volume

Proposed dredge volume (m ³)	No. of sample stations required
≤25,000	3
32,500	4
50,000	5
75,000	6
100,000	7
150,000	8
200,000	9
250,000	10
300,000	11
350,000	12
400,000	13
450,000	14
500,000	15
600,000	16
700,000	17
800,000	18
900,000	19
1,000,000	20
1,100,000	21
1,200,000	22
1,300,000	23
1,400,000	24
1,500,000	25
1,600,000	26
1,700,000	27
1,800,000	28
1,900,000	29
2,000,000	30
>2,000,000	Seek guidance from ms.marinelicensing@gov.scot

If you are dredging more than 1 metre in depth or in an area with known or suspected contamination you will be required to take core samples, cores should extend to the maximum dredge depth. Individual cores count as 1 station, so a 100,000m³ dredge of over 1 metre would require 7 cores to be collected. When a core is collected you should sub-sample the surface layer (0-15cm) then every 50cm thereafter. Initially you should select sub-samples from the surface, middle and bottom of the core for analysis, with **all** sub-samples retained for further analysis.

Table 2 – Action Levels

Contaminant	Revised AL1 mg/kg dry weight (ppm)	Revised AL2 mg/kg dry weight (ppm)
Arsenic (As)	20	70
Cadmium (Cd)	0.4	4
Chromium (Cr)	50	370
Copper (Cu)	30	300
Mercury (Hg)	0.25	1.5
Nickel (Ni)	30	150
Lead (Pb)	50	400
Zinc (Zn)	130	600
Tributyltin	0.1	0.5
Polychlorinated Biphenyls	0.02	0.18
Polyaromatic Hydrocarbons		
Acenaphthene	0.1	
Acenaphthylene	0.1	
Anthracene	0.1	
Fluorene	0.1	
Naphthalene	0.1	
Phenanthrene	0.1	
Benzo[a]anthracene	0.1	
Benzo[b]fluoranthene	0.1	
Benzo[k]fluoranthene	0.1	
Benzo[a]pyrene	0.1	
Benzo[g,h,i]perylene	0.1	
Dibenzo[a,h]anthracene	0.01	
Chrysene	0.1	
Fluoranthene	0.1	
Pyrene	0.1	
Indeno(1,2,3cd)pyrene	0.1	
Total hydrocarbons	100	
Booster Biocide and		
Brominated Flame Retardents *		

*Provisional Action Levels for these compounds are subject to further investigation.

4. Submitting results

Results should be submitted to MS-LOT using the [Pre-disposal Sampling Results form](#).